

## OPINION 113

*Sarcoptes* LATREILLE, 1802, TYPE *scabiei*, PLACED IN  
OFFICIAL LIST

SUMMARY.—*Sarcoptes* Latreille dates from 1802 instead of 1804 or 1806 as frequently quoted. It was originally monotypic, containing only *Acarus scabiei*. The 1810 type designation of *Acarus passerinus* is invalid under Article 30c and 30ea. The acceptance of *Acarus scabiei* as type species of *Acarus* is invalidated by Article 30g, according to which *Acarus siro* (syn. *farinae*) is the type of *Acarus*. *Sarcoptes* Latr., 1802, mt. *scabiei* is hereby placed in the Official List of Generic Names.

PRESENTATION OF CASE.—This case has been presented to the Commission in correspondence and verbally by several persons. The documents are too extensive to be reprinted here in full but they may be summarized briefly as follows:

A. Oudemans maintains that the pre-Linnaean history of the generic name *Acarus* and of the specific name *siro* clearly shows that these two names were used for the itch mite of man. In a very learned discussion he traces this use of the word *Acarus* to the following dates:

1557, 1567, 1577, 1622, 1630, 1634, 1641, 1650, 1657, 1658, 1660, 1663, 1664, 1667, 1671, 1675, 1676, 1677, 1680, 1686, 1689, 1691, 1692, 1696, 1699, 1700, 1703, 1708, 1722, 1724, 1733, 1735, 1739, 1740, 1756;

and this use of the word *siro* to the following dates:

1513, 1516, 1570, 1602, 1607, 1608, 1619, 1631, 1641, 1650, 1652, 1656, 1660, 1661, 1670, 1676, 1679, 1680, 1682, 1686, 1687, 1689, 1691, 1695, 1697, 1699, 1701, 1703, 1708, 1709, 1716, 1717, 1719, 1722, 1723, 1724, 1729, 1731, 1733, 1735, 1736, 1740, 1741, 1751, 1753, 1754, 1756.

Oudemans' position is that Linnaeus chose the generic name *Acarus* because this had become classic and that the species present to his mind was the itch mite; further that *Acarus siro* permitted him to avoid tautonymy, and to his mind *Acarus siro* was consequently and basically the itch mite, and this species, therefore, he (Oudemans) definitely takes as type species of *Acarus*.

B. Vitzthum (1927, Zool. Anz., v. 72 (3-4), June 20, pp. 115-126) reviews the literature from 1758 to 1927 and arguing on basis of the International Rules he concludes that *Acarus siro* in the sense of the itch mite is the type species of *Acarus* and that *Acarus passerinus* is the type species of *Sarcoptes*.

C. Several authors date *Sarcoptes* as 1804 or 1806; if this date be accepted the designation of *passerinus* as type species of *Sarcoptes* by Latreille, 1810a, p. 425, is valid, and will result in a considerable amount of confusion in nomenclature of generic, subfamily, and family names in zoology, and in considerable confusion in terminology in human and veterinary medicine and pathology. Under this premise the question of a Suspension of Rules comes up for consideration.

D. Some authors point out that the earliest publication of the generic name *Sarcoptes* was by Latreille, 1802, and that at this date the name was monotypic, since only *Acarus scabiei* was mentioned in connection with it.

The Commission is requested to review the premises and to render an Opinion.

DISCUSSION.—This case is, in some respects, much more complicated than at first it appears. To understand it, one must start with Linnaeus, 1758a. The case involves the names *Acarus* 1758, *Siro* 1759, 1795, 1796, 1802, *Sarcoptes* 1802, *Glyciphagus* 1838, *Eusarcoptes* 1888, and *Analges* 1818.

Linnaeus, 1758a, 615-618, used *Acarus* as generic name for 31 species; of these, the following are of special importance in this case:

No. 10. *A. passerinus*. Habitat in *Passeribus* variis.

No. 15. *A. siro*, which he divided under two headings in quoting earlier literature, namely, *farinae* and *scabiei*. "Habitat in Farina Europae, Americae. Inter *Sirones farinae*, *scabiei*, *dysenteriae*, *hemitritae*, non reperi alias differentias, quam a loco petitas. Amoen. acad. 3. p. 333."

No. 16. *A. exulcerans*. Habitat in Scabie ferina.

According to the Linnaean rule, Article 30h, the following most common and medicinal species come into special consideration as possible genotype:

2. *A. aegyptius*; tsd. of *Hyalomma* 1844;

3. *A. reduvius*; syn. of (6) *ricinus*;

4. *A. americanus*; now in *Amblyomma* 1844;

6. *A. ricinus*; tsd. (1810) of *Ixodes* 1796;

15. *A. siro*; later restricted to *farinae* by Latreille;

*farinae*; habitat in Farina, Europe (tpd.) and America;

*scabiei*; on *Homo*, type host, Europe (tpd.); mt. of *Sarcoptes* 1802; tsd. of *Acarus* by Oudemans;

16. *A. exulcerans*; habitat in Scabie ferina.

Of these 6 Linnaean species, *A. siro* in the sense of *scabiei* could best have been chosen as type.

Kniphof (1759, De Pediculus inguinalibus insectis et vermibus homini molestis, pp. 20-26) cites § XXI *Acarus*, with a number of subheadings "Acari capitis," "Acari scabiei," etc., which Sherborn (1902a Index) does not cite as specific combinations as of 1759. and the Secretary inclines to agree with him. On page 20, Kniphof cites "*Cyro*, *Siro*," and on p. 52, he cites "*Sirones*." Sherborn (1902a, 909) accepts *Siro* from p. 52, as of generic status but the reason is not clear to the Secretary, and on this account he (the Secretary) accepts this *Siro* as dating from Sherborn, 1902a, 909, instead of from Kniphof, 1759, 52. Linné (1758a, 617) also cited *Sirones* but apparently not as a generic name.

Latreille, 1795 (Mag. encycl., v. 4, p. 7) and 1796a (Précis) published two papers in which he cited single species as examples for various acarine genera, and these examples are interpreted by some authors as definite designations of type species for the genera in question.

For the generic names which are new in these two papers this interpretation is undoubtedly correct, for these particular genera are monotypic by original publication. But for those generic names which are old—namely, published prior to these two papers—citation of the species is not made in such a way that they can be interpreted as types under the following provision of Article 30g: “The meaning of the expression ‘select the type’ is to be rigidly construed. Mention of a species as an illustration or example of a genus does not constitute a selection of a type.” Accordingly, for the older genera these citations are to be interpreted as examples, not as type species. With this conclusion in mind some of the existing confusion can be cleared.

*Sarcoptes* Latreille, 1802b, Hist. nat. d’Ins., v. 3, 67, was first published as monotypic, namely mt. *Acarus scabiei*. Article 30c.

In the same publication Latreille (1802b) cites (p. 64) *Acarus* example *A. siro* syn. *Tyroglyphus* 1796, mt. *Acarus siro* and (p. 62) *Siro* Latreille, 1795, 19, with *Siro rubens* Latreille; as *rubens* is the first and only species mentioned with the generic name *Siro* it becomes automatically the type of *Siro*. See Art. 30g and Opinion 46.

This publication of 1802 definitely fixes the type species of *Sarcoptes*.

The type species of *Acarus* was first definitely designated by Latreille, 1810a, p. 425, when he cited as type *Acarus siro* from which *scabiei* was eliminated, thus leaving *siro* in the sense of *farinac*.

The question at issue can be closed with the works of Latreille, 1802 and 1810, but for a clearer understanding of the various complications which have arisen the following table of historical data is given herewith.

*Acarus* Linn., 1758a, 344, 615, with 31 species, including *siro* (with 2 varieties, *farinac* [tsd.] and *scabiei* [eliminated]). [Objective syn. *Tyroglyphus* Latr., 1802, mt. *siro* (i. e., *farinac*).]

1795: *Acarus coleoptratus* Linn., 1758a, 616, no. 13, cited as example (not as type) by Latreille, 1795, Mag. encycl., v. 4, 19. [Cf. *Notaspis* Herm., 1804]. Some authors have construed this as type designation.

1796: *Acarus geniculatus* Linn., 1758a, 617, no. 17, cited as example (not as type) by Latreille, 1796a, 184. Some authors have construed this as type designation.

[1796: *siro* [not *scabiei*] mt. of *Tyroglyphus* by Latreille, 1796a, 185.]

- 1802: *Acarus siro* Linn., 1758a, p. 616, no. 15, cited as example (not as type) by Latreille, 1802b, 64, with *Tyroglyphus* 1796 as syn. In 1796 this was mt. of *Tyroglyphus* [cf. *farinae* 1758]; *scabiei* eliminated to *Sarcoptes* as mt. Some authors have construed this as type designation.
- 1810: *Acarus siro* Fabr. definitely designated type by Latreille, 1810a, 425. [The variety *scabiei* had been eliminated to *Sarcoptes*, leaving *farinae* as type of *siro*.]
- 1826: *Acarus siro* [not including *scabiei*] Linn., definitely designated type by Heyden, 1826, 151, 611.
- 1834: *Acarus domesticus* de Geer, 1778, definite but erroneous designation by Dugès, 1834. Not an original (1758) species, hence pseudotype, etc. Cf. *Glyciphagus*.
- 1877: *Acarus domesticus* cited as 1st species (not as definite type designation) by Canestrini and Fanzago, 1877, 196, Atti r. Inst. Ven. Sci. Lett. Art., v. 4.
- 1926: 1st. *Acarus siro* (= *scabiei*) definitely designated type by Oudemans, in various articles and letters.
- 1927: type *siro* 1758 (syn. *scabiei*) by Vitzthum, 1927, Zool. Anz., v. 72, 115-126.

Thus, under the Rules, *Acarus* supplants *Tyroglyphus*, unless the Rules be suspended by suppressing *Acarus* entirely on utilitarian grounds.

*Sarcoptes* Latr., 1802b, 67, mt. *scabiei*.

1802: *Acarus scabiei* Linn., 1758a, 616, no. 15 var., only species cited for *Sarcoptes*.

[1808: *nidulans* classified by Nitzsch, 1808, E. and G. Encycl., v. 1, p. 251, as a *Sarcoptes*.]

1810: etd. *passerinus* Linn., 1758a, 616, no. 10 (not an original, 1802, species), definitely designated type by Latr., 1810a, 425. [Transferred to *Analges* by Nitzsch, 1818.]

1826: etd. *nidulans* Nitzsch (not an original, 1802, species) definitely designated type by Heyden, 1826, 611.

1861: emended to *Sarcoptes* Moq.-Tand., 1861a, 307.

1888: subg. *Eusarcoptes* Rail., 1888, 1st. (1927) *scabiei* by Stiles and Hassall, 1927, 263.

1892: emended to *Sarcoptes* Anacker, 1892b, 61.

—: emended to *Sarcoptes* by various German authors.

1903: *siro* assumed to be type by absolute tautonymy of *Siro* Latr., 1795, by Michael, 1903, 102, and syn. of *scabiei*. See, however, *Siro rubens* in Latr., 1802b.

1915: *scabiei* accepted as type by Apstein, 1915a.

1927: *scabiei* accepted as mt. of *Sarcoptes* by Stiles and Hassall, 1927, p. 263.

1927: *passerinus* accepted as type by Vitzthum, 1927, Zool. Anz., v. 72, 125.

In view of the foregoing data the Secretary recommends that the Commission adopt as its Opinion the following:

*Sarcoptes* Latreille dates from 1802 instead of 1804 or 1806 as frequently quoted. It was originally monotypic, containing only *Acarus scabiei*. The 1810 type designation of *Acarus passerinus* is invalid under Article 30c and 30ea. The acceptance of *Acarus scabiei*

as type species of *Acarus* is invalidated by Article 30g according to which *Acarus siro* (syn. *farinae*) is the type of *Acarus*.

*Sarcoptes* Latr., 1802, mt. *scabiei* is hereby placed in the Official List of Generic Names.

Opinion prepared by Stiles.

Opinion concurred in by fifteen (15) Commissioners: Apstein, Bather, Dabbene, Chapman, Handlirsch, Hartert, Horvath, Ishikawa, Jordan (D. S.), Jordan (K), Kolbe, Stejneger, Stiles, Stone, Warren.

Opinion dissented from by no Commissioner.

Not voting, two (2) Commissioners: Loennberg, Neveu-Lemaire.